MANUAL PART NUMBER: 400-0057-003
PRODUCT REVISION: 3

PNP200

Pop 'N Plug™ Interconnect Box

USER'S GUIDE

INTRODUCTION

Your purchase of the **PNP200** Interconnect Box is greatly appreciated. We are sure you will find it reliable and simple to use.

Superior performance for the right price, backed by solid technical and customer support is what Altinex has to offer.

The product you are holding in your hands is designed using state-of-the-art technology and is superior to anything available on the market. You will find this and our other products reliable, long lasting, and simple to operate.

We are committed to providing our customers with signal management solutions to the most demanding audio-visual installations at very competitive pricing.

We appreciate your selection of our products and are confident that you will join the ranks of our many satisfied customers throughout the world.

This manual covers:

   PNP200 – Pop `N Plug™ Interconnect Box.

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PRECAUTIONS / SAFETY WARNINGS   1

Please read this manual carefully before using your **PNP200** Interconnect Box. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **PNP200** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

1.1 GENERAL

- Unauthorized personnel shall not open the unit since there are high-voltage components inside.
- Qualified Altinex service personnel, or their authorized representatives must perform all service.

1.2 INSTALLATION

- For best results, place the **PNP200** Interconnect Box in a dry area away from dust and moisture.
- To prevent fire or shock, do not expose this unit to rain or moisture. Do not place the **PNP200** Interconnect Box in direct sunlight, near heaters or heat radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **PNP200** Interconnect Box carefully. Dropping or jarring can damage internal components.
- Never place fingers inside the openings in the back of the unit. This action could cause serious injury because of the sharp edges inside of the **PNP200**.
- Do not place heavy objects on top of the **PNP200**. Do not use excessive force to push down on the top of the unit.
- To turn off main power, disconnect the power cord, which powers the power socket on the **PNP200** pop-up panels only, and unplug the 9V 500mA-power supply. The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.

- We recommend using wall outlets with a Ground Fault Circuit Interrupter (GFCI) for maximum protection.
- Install all cables according to the instructions. Do not force or pull out any cable or power cord that is attached to the **PNP200** Interconnect Box.

1.3 CLEANING

- Surfaces should be cleaned with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the unit.

1.4 FCC / CE NOTICE

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including that which may cause undesired operation.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant, to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by Altinex, Inc. could void the user's authority to operate the equipment.

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ABOUT YOUR PNP200   2

The **PNP200** is designed for installation into a conference room table. The **Pop 'N Plug™** Interconnect Box (**PNP200**) provides a means of connecting audio, video, control, and computer video sources into a presentation system. It is ideal for use together with Altinex computer video interfaces. The **Pop 'N Plug™** Interconnect Box can either "pop up" into a raised position to provide access to connectors or it can be lowered into a table when not in use. Using a tower-type construction with pneumatic suspension and an electromagnetic latching mechanism does this.

The **Pop 'N Plug™** Interconnect Box provides easy access to system inputs when they are needed. It also removes system inputs when not needed, eliminating the obstruction. The **Pop 'N Plug™** Interconnect Box has two input plates on either side of the unit, servicing both sides of a table. Each standard plate offers Computer Video (15-pin HD); Composite Video (RCA), Audio (RCA), Computer Audio (Stereo Mini), Modem (RJ-11), 9-pin D-type RS-232 and Network (RJ-45) input connections. All signals are passed through to a set of female connectors or cables. Several optional connectors can be substituted for the standard set of connectors.

The **Pop 'N Plug™** Interconnect Box is designed for use with tables ranging from one to three inches thick. It offers an adjustable retaining ring to secure the unit flush with the table's surface. The **Pop 'N Plug™** comes in a standard matte black color. The top of the unit can be finished to match the table or it can be painted another color. This is available on the custom per order basis at an additional charge.

TECHNICAL SPECIFICATIONS   3

FEATURES/DESCRIPTION	PNP200
GENERAL	
Front Panel Standard Configuration Connectors (side without fuse box)	
Power	1 IEC (standard)
Computer Video	1 15-pin HD-F
Composite Video	1 Yellow RCA F
Audio, left, right	1 Black, 1 Red RCA F
Audio	1 3.5 mm stereo F
Telephone	1-RJ-11 F (6-position)
Network	1 RJ-45 F (8-position)
Control	1 DB-9 F

Back Panel Standard Configuration Connectors (side with fuse box)	
Power	1 IEC with 10 A fuse
Computer Video	1 15-pin HD-F
Composite Video	1 Yellow RCA
Audio, left, right	1 Black, 1 Red RCA
Audio	1 3.5 mm stereo
Telephone	1-RJ-11
Network	1 RJ-45
Control	1 DB-9 F

Table 1. **PNP200** General

MECHANICAL	PNP200
Mechanical	
Width (inches)	6.030in (153mm)
Height (inches)	8.230in (209mm)
Finish	Black
T° Operating	10°C-35°C
T° Maximum	50°C
Humidity	90% non-condensing

Table 2. **PNP200** Mechanical

Power	
Power for Operation	9V 500mA DC
Power Consumption	Max 10 watts
Power Rating (pass through connector)	90-140 VAC, 2A Max

Table 3. **PNP200** Electrical

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PNP200 DIMENSIONS   4

Diagrams: 1A, 1B, 1C, & 1D

PNP200 DIMENSIONS *(con't)

TOP VIEW
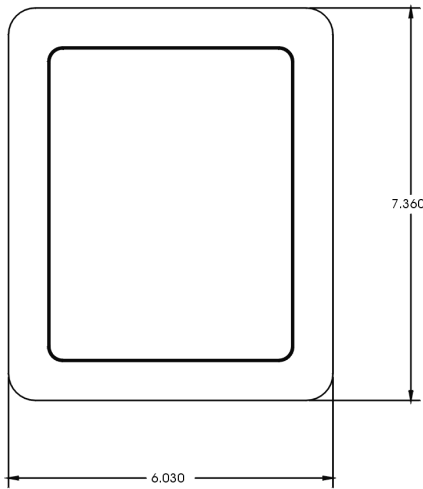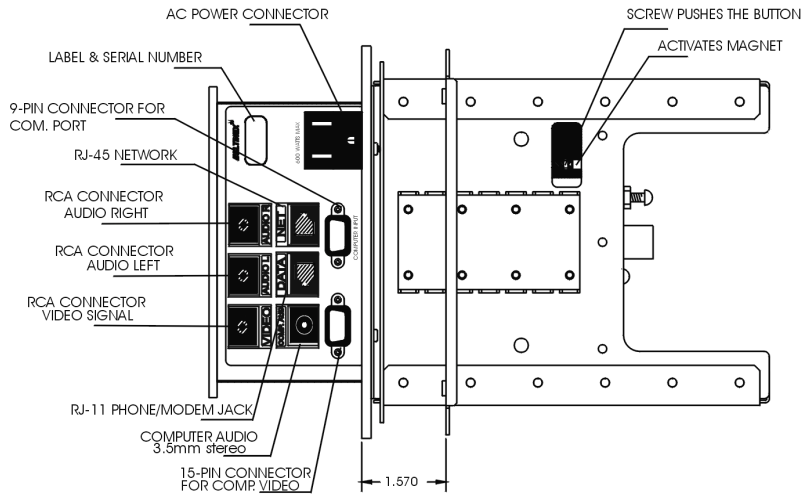
FRONT VIEW

AC POWER CONNECTOR

SCREW PUSHES THE BUTTON

ACTIVATES MAGNET

LABEL & SERIAL NUMBER

9-PIN CONNECTOR FOR
COM. PORT

RJ-45 NETWORK

RCA CONNECTOR
AUDIO RIGHT

RCA CONNECTOR
AUDIO LEFT

RCA CONNECTOR
VIDEO SIGNAL

RJ-11 PHONE/MODEM JACK

COMPUTER AUDIO
3.5mm stereo

15-PIN CONNECTOR
FOR COMP. VIDEO

7.360

6.030

1.570

Diagram 1A

Diagram 1B

SIDE VIEW
(open PNP200)

2.840

SIDE VIEW
(closed PNP200)

8.230

5.290

Diagram 1C

Diagram 1D

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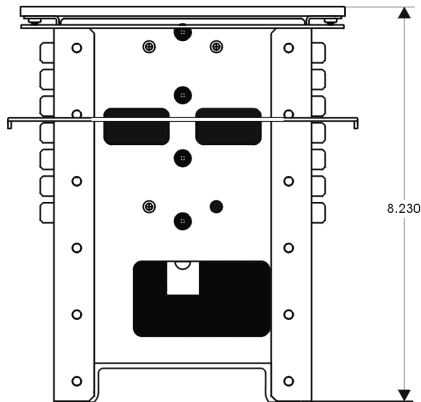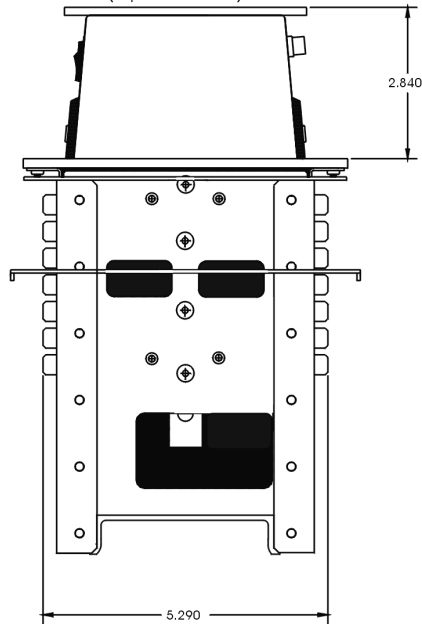
Diagram 2: Back View of PNP200

BACK VIEW

15-PIN CONNECTOR
FOR COMPUTER VIDEO

AC POWER
CONNECTOR

10 AMP BREAKER SWITCH/
FUSE BOX

COMP. AUDIO

RCA CONNECTOR
FOR VIDEO

RCA CONNECTOR
AUDIO LEFT

RCA CONNECTOR
AUDIO RIGHT

9-PIN
CONNECTOR
FOR COMP. PORT

RJ-45 NETWORK

RJ-11 PHONE/
MODEM JACK
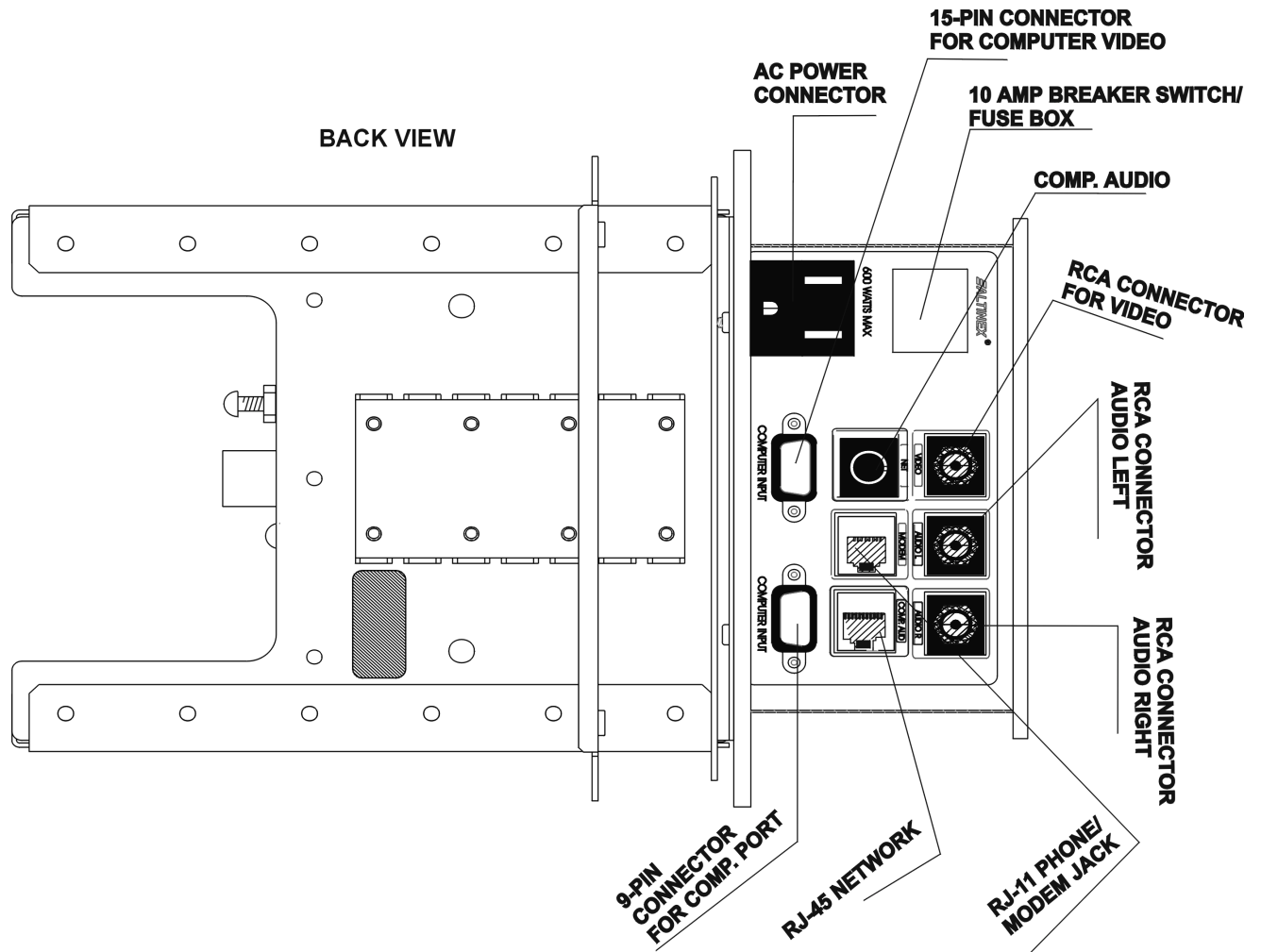
APPLICATION DIAGRAM   5

Diagram 3: Application

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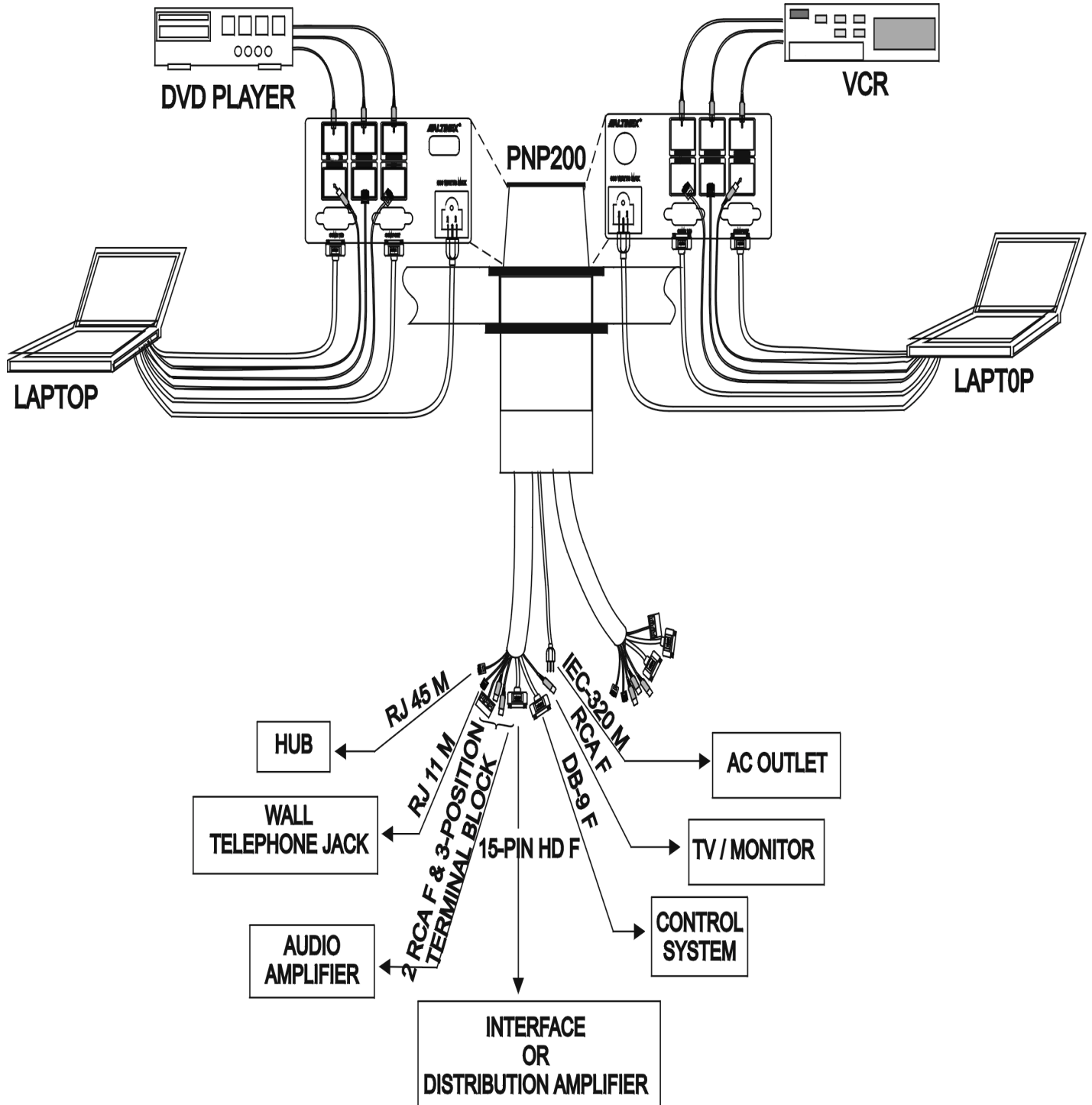
Diagram 4: Final Installation

PNP200 IN AN OPEN POSITION

POWER CORD

SIDE VIEW

STEP 6:
PASS THE POWER CORD THROUGH THE HOUSING AND ATTACH THE POWER CORD TO A SECURED SURFACE/ TABLE WITH A CABLE CLAMP

STEP 8:
ATTACH THE OTHER END OF THE GROUND WIRE TO A PROTECTIVE EARTH GROUND USING A WASHER AND A 6-32 SCREW

STEP 7:
MAKE SURE THAT YOU MOUNT ONE END OF THE GROUND WIRE ASSEMBLY TO THE THREADED NUT ON THE BOTTOM OF THE HOUSING USING A WASHER AND A 4-40 SCREW.

PROTECTIVE EARTH GROUND

Diagram 5: Table Cutout Requirements

6.05

5.35

0.57

0.55

0.20 TYP.

0.10 TYP.

R0.11 TYP.

2.25

1.80   6.29   7.38

R0.51

TABLE TOP SURFACE

TOP VIEW
TABLE CUTOUT

0.40

TABLE THICKNESS APPROX. 3.0 OR THINNER

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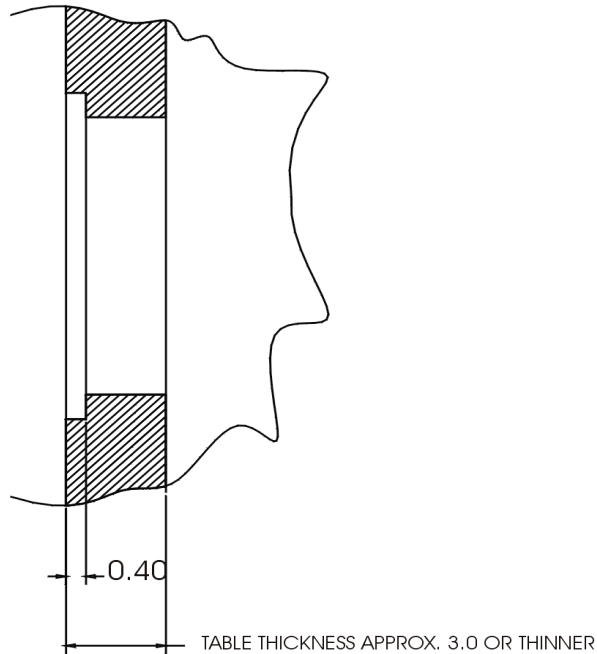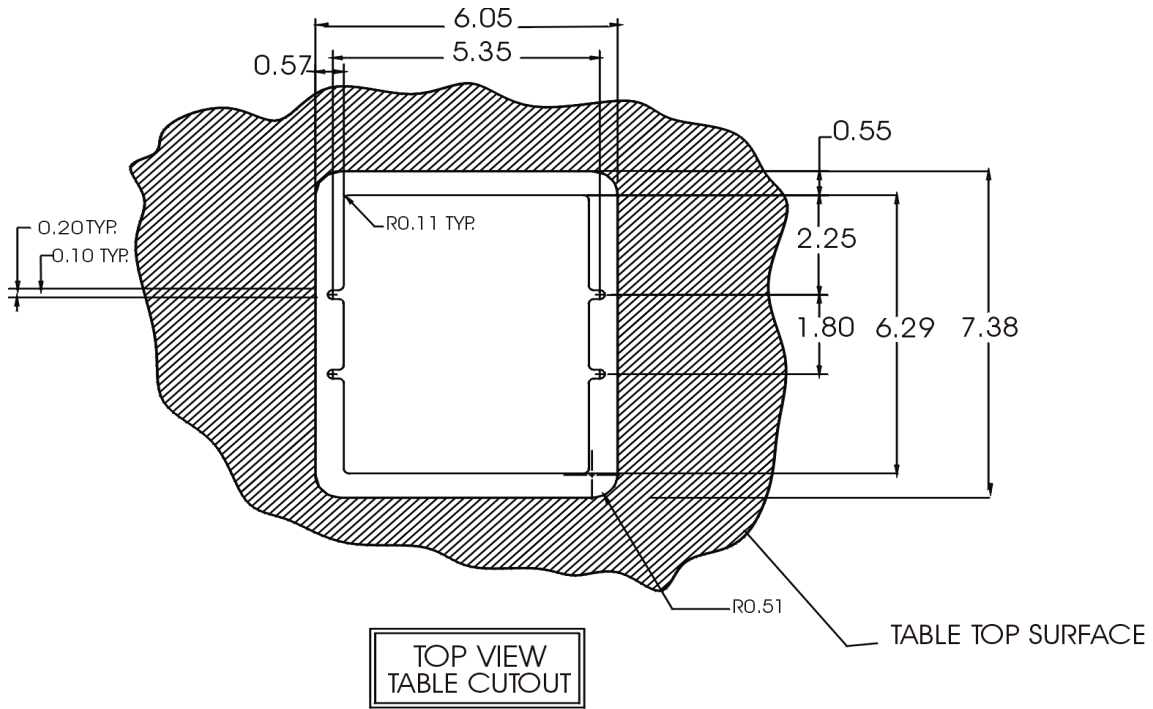
Step 1. Make sure the gas spring is not compressed when you remove the locking screw. To release the gas spring, push down and turn the knob in the center of the bottom of the **PNP200** by 90 degrees. Remove the lock down screw from the **PNP200**. The locking screw is the smallest silver colored screw that is located on the bottom of the unit. Re-engage the gas spring by pushing down on the knob and turning it back to the original position, thereby locking the gas spring into place.
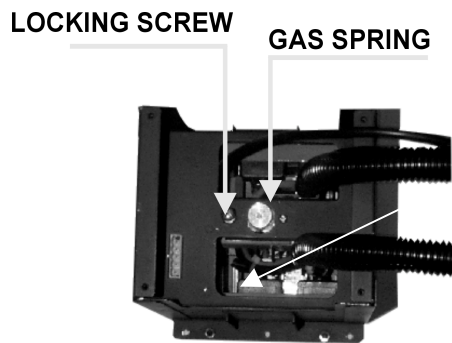

Figure 1: Gas Spring

Step 2. Cut an opening into the table's surface using the dimensions of 7.38 in x 6.05in. Refer to diagram 5 on page 7 of the manual for table cutout requirements.

Note: The table can be 3 inches or thinner in thickness. Always confirm dimensions before cutting to insure that specifications have not changed.

Step 3. Place the support plate into the hole in the table. The support plate is the square flat plate that can fit into the hole in the table (See Figure 2).
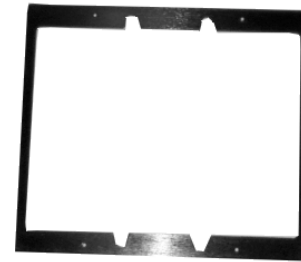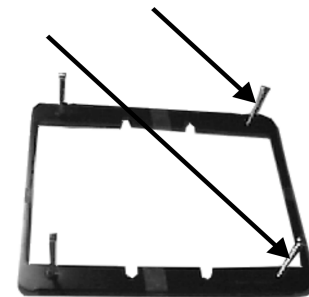

Figure 2: Support Plate

Step 4. Insert the **PNP200** into the table. The **PNP200** can be adjusted to be flush or at exactly the same level as the tabletop. Turning the four-socket head set screws on the top of the **PNP200** does this. An allen wrench provided with the **PNP200** is used to adjust the height level.

Step 5. Insert the four screws, which are provided, into the adjustable retaining ring from bottom side of the table. The adjustable retaining ring allows securing unit to the table. The adjustable retaining ring is a flat square plate with two bent edges, that will not fit into the hole in the table.


Figure 3: Insertion of Screws into the Adjustable Retaining Ring

Step 6. Secure the cables by using the provided mounting brackets. There are two mounting brackets (See Figure 4). Pass the power cord from the side of the housing and attach it to the surface with the cable-clamp supplied with the **PNP200**

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unit. Do not keep the cord too tight or too loose (See Diagram 4, page 6).
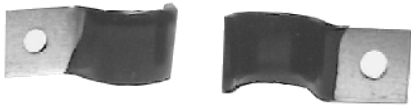
Figure 4: Mounting Brackets

Step 7. Make that the provided ground wire assembly is secured to the threaded nut located on the bottom of the housing of the **PNP200** with a star-washer and a 4-40 screw as shown in Diagram 4, page 6.

Step 8. Attach the other end of the ground wire assembly to a Protective Earth Ground with provided 6-32 screw and star-washer.

Step 9. Connect the appropriate cables with the correct input connectors. There are two RCA connectors on each side of the **PNP200**. The black connectors are known as audio left, whereas the red connectors are called audio right. On either side of the unit, there is also a RCA video connector, which is yellow in color. The network connection is red; In addition, the telephone or data connection is gray.

Step 10. Once you have applied power and connected the proper cables on the bottom of the unit, you may raise the unit. To raise the PNP200 into position, press the top of the unit.

Step 11. To lower the unit, push on the top of the PNP200 until it fits into place. When the 9V DC adapter is plugged in, 9 volts must be applied. Once the 9 volts have been applied, the release top connection will be engaged. This mechanism allows the unit to lock into place, and then pop up when pressure is put on the top of the unit.

**CONGRATULATIONS! YOU ARE DONE.
ENJOY YOUR Pop `N Plug™ Interconnect Box.**

> **If you experience any problems, please call 1-800-258-4623 or 1-714-990-2300 for international calls.**

OPERATION   7

7.1 LOCK, RELEASE, STATUS CONTROL PINS

To lock the position of the **PNP200**, connect the LOCK pin of the terminal block to GND. Note: the power supply is rated at 9V, but since the current demand of the **PNP200** is low, it will reach 12 volts at the terminal block. If a regulated power supply is used, it should be a 12-volt power supply. A regulated power supply is when the power supply is at 12 volts, and when the power supply is at 9 volts, it is known as unregulated.

To release the top connector assembly, connect the RELEASE pin of the terminal block to GND.

To determine the status of the **PNP200**, examine the STATUS pin. The status pin should be a TTL digital level only. When the **PNP200** is in an up position 5 volts is present, whereas 0 volts represents the down position.

7.2 HOW TO RELEASE AND REPLACE THE GAS SPRING

To replace the spring, push up, and turn the knob in the center on the bottom of the **PNP200** by 90 degrees, thereby releasing the gas spring.

Unscrew the knob, and then unscrew the gas spring itself from the **PNP200**. Replace the gas spring with a new one by screwing it in, and then replacing the knob.

Re-engage the new gas spring by pushing up, and turning the knob by 90 degrees. After you have finished this step, you have completed the installation.

Under normal conditions the gas spring will last up to five years.

ACCESSORIES 8

Model No.	Description
	VGA MALE TO MALE (HD-15) HIGH RESOLUTION CABLE
CB37xxMR	xx = available length of 3ft, 6ft, 15ft, 25ft, 50ft, 75ft, 100ft, 150ft
	VGA MALE TO FEMALE (HD-15) HIGH RESOLUTION CABLE
CB39xxMR	xx = available length of 3ft, 6ft, 15ft, 25ft, 50ft, 75ft, 100ft, 150ft, 200ft, 250ft
	SUPER HIGH RESOLUTION PLENUM-FLEX MULTI-CHANNEL COAX CABLE VGA MALE TO VGA MALE (HD-15)
CB5000PL-5VMxxxVM	xxx = available length of 3ft, 6ft, 15ft, 25ft, 50ft, 75ft, 100ft, 150ft, 200ft, 250ft
	SUPER HIGH RESOLUTION PLENUM-FLEX MULTI-CHANNEL COAX CABLE VGA MALE TO VGA FEMALE (HD-15)
CB5000PL-5VMxxxVF	xxx = available length of 3ft, 6ft, 15ft, 25ft, 50ft, 75ft, 100ft, 150ft, 200ft, 250ft
	SUPER HIGH RESOLUTION PLENUM-FLEX MULTI-CHANNEL COAX CABLE VGA MALE TO VGA FEMALE (HD-15)
CB5100PL-5VMxxxVM	xxx = available length of 3ft, 6ft, 15ft, 25ft, 50ft, 75ft, 100ft, 150ft, 200ft, 250ft
	SUPER HIGH RESOLUTION PLENUM-FLEX MULTI-CHANNEL COAX CABLE VGA MALE TO VGA FEMALE (HD-15)
CB5100PL-	xxx = available length of 3ft,

5VMxxxVF	6ft, 15ft, 25ft, 50ft, 75ft, 100ft, 150ft, 200ft, 250ft
	POWER CABLES
PC5301US	Power Cable for US
PC5302UK	Power Cable for UK
PC5303AU	Power Cable Australia
PC5304GR	Power Cable Germany
	OPTIONAL CONNECTORS
	Blank Connector (Snap-in and 15-pin location)
	BNC Female
	4-pin Mini-DIN
	6-pin Mini-DIN

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TROUBLESHOOTING GUIDE	9

The **PNP200** supplied unit was carefully tested and no problems were detected; however, we would like to offer these suggestions.

- Please make sure that the Fuse is of a 10 Amps rating.

- Please make sure that the highest quality video, audio, network, and telephone cables or connectors are used.

- Make sure that the 9V DC adapter or the external regulated 12 volts is plugged into the power.socket for proper operation.

- Make sure that any cable or power cord is not damaged or pinched. If it has been damaged, then do not use the **PNP200** unit. Immediately contact the Altinex Customer Service Department to have

ALTINEX POLICY	10

10.1 LIMITED WARRANTY

Altinex warrants that its products and cables are free from defects in materials under normal use and service. This warranty is limited to repairing at company's factory any part or parts of the product that shall within 2 years (90 days for cables) from date of shipment to the purchaser be returned to company with transportation charges pre-paid. The company's examination shall disclose product(s) to be thus defective. The warranty is expressly in lieu of all other warranties expressed or implied. Altinex neither assumes nor authorizes any other person to assume for it any other liability concerning the sale of the products. This warranty shall not apply to any product that shall have been repaired or altered outside of company's factory in any way so as, in its judgment, to affect its stability or reliability, or that has been subject to misuse, negligence or accident.

10.2 RETURN POLICY

It is very important to Altinex that you receive all products that you have ordered and that this product fulfills your needs. In the unlikely event, that an Altinex product needs to be returned please follow the policies below:

Altinex will accept all product returns for a period of 30 days from authorized Altinex dealers in an unopened package.

If a product has been opened, the restocking fees will apply. For the restocking fee, please contact an Altinex Sales Representative.

If the product is in your possession for more than 30 days, the restocking fees will apply.

Altinex will not accept any returns on cables or custom products.

If your product is in warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service.

If your product is out of warranty and needs service, contact the Altinex Sales Department for an RMA (Return Material Authorization). Products returned without an RMA number may experience a delay in service. The service charges will be quoted to you before the actual repairs are done.

10.3 CONTACT INFORMATION

Sales Department

Phone:	714-990-2300
Fax:	714-990-3303

Accounting Department

Phone:	714-990-6088
Fax:	714-990-5778

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